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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,874	12/21/2001	Takayuki Ishikawa	35.C16082	4665
5514	7590	01/06/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			HESS, BRUCE H	
30 ROCKEFELLER PLAZA			ART UNIT	
NEW YORK, NY 10112			PAPER NUMBER	

1774

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,874

Applicant(s)

ISHIKAWA ET AL.

Examiner

Bruce H Hess

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10-19-04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-58 is/are pending in the application.
- 4a) Of the above claim(s) 27-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) 27-32, 49-54 and 58 is/are allowed.
- 6) ☒ Claim(s) 27-32, 49-54 and 58 is/are rejected.
- 7) ☒ Claim(s) 33-48 and 55-57 is/are objected to.
- 8) ☐ Claim(s) 33-48 and 55-57 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 10-19-04 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. 10/023,874.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO-930/930B)
Paper No(s)/Mail Date 5-25-04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date 5-25-04
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: None

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1. In view of the application of new references, the indication of allowable subject matter in the last Office action is modified to include only claims 33-48 and 55-57 (see below).

2. Claims 33-48 and 55-57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. Claims 27, 29-32 and 54 are rejected under 35 USC 102 (b) as being anticipated by the patent to Smith et. al (U.S.P. 6,142,618).

See column 7, lines 40-60 and column 16.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Smith et al.

Smith et al. teach an imaging process whereby ink is applied to a substrate and a non-volatile liquid which doesn't dissolve the ink colorant is applied to the ink image and pressed with the inherent result of the ink colorant being embedded in the receiving layer of the recording sheet. A preferred non-volatile liquid is the modified silicone oil of applicant's claim 32. The experimental modification of this prior art in order to ascertain optimum operating conditions (e.g., determine the viscosity of the non-volatile liquid) fails to render applicants' claims patentable in the absence of unexpected results.

5. Claims 28, 51 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Smith et al. in view of the patent to Barcock et al. (JP 2001010222).

The teachings of Smith et al. are discussed above. Barcock et al. teach the advantages of employing alumina in ink jet recording layers and barium sulfate in an

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intermediate layer in ink jet recording material. Given the generic nature of the Smith et al. disclosure with respect to the actual ink jet recording material employed, use of the specific Berrock et. al ink jet materials for their concomitant advantages in the Smith et al. ink jet recording material would have been an obvious expedient to one of ordinary skill in this art in the absence of unexpected results.

6. Claims 28 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent to Smith et al in view of any of the patents to Sugiyama et al (JP 2000079752), Nakamura et al (JP 200043406) or Shaw – Klein et al. (JP 200052638).

The teachings of Smith et al. are discussed above. The three Japanese patents all teach the advantages of employing either silica or alumina in ink jet recording layers. Use of these specific fine particles for their advantageous function in the generically disclosed recording layer of Smith et. al. would have been obvious to one of ordinary skill in this art in the absence of unexpected results.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce Hess whose telephone number is (571) 272-1525. The examiner can normally be reached on Monday to Friday 9 Am to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B. Hess/af
December 21, 2004

A handwritten signature in black ink, appearing to read "Bruce Hess", is positioned above the typed name and title.

**BRUCE H. HESS
PRIMARY EXAMINER
GROUP 1300**